WE4.9 Complete versus partial excision of an infected mesh following abdominal wall hernia repair: A systematic review and meta-analysis

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Aims: We aimed to evaluate comparative outcomes of complete and partial excision of infected mesh following abdominal wall hernia repair.

Method: A systematic search of electronic databases and bibliographic reference lists with application of a combination of free text and controlled vocabulary search adapted to thesaurus headings, search operators and limits was conducted. Surgical site infection (SSI), chronic sinus formation, recurrent hernia and need for reoperation were the evaluated outcome measures.

Results: Six comparative observational studies were identified, reporting a total of 317 patients of whom 193 underwent complete mesh excision and the remaining 123 patients underwent partial mesh excision for an infected mesh following abdominal wall hernia repair. The complete mesh excision was associated with significantly lower rates of SSIs (OR: 0.36; 95% CI, 0.16–0.81, p=0.01), chronic sinus formation (OR: 0.11; 95% CI, 0.02–0.71, p=0.02), and reoperation (OR: 0.10; 95% CI, 0.03–0.33, p=0.0001) compared to the partial mesh excision. There was no significant difference in hernia recurrence rate (OR: 3.96, 95% CI 0.62–24.44, p=0.15) between two groups.

Conclusions: Our meta-analysis demonstrated that complete mesh excision may be associated with lower SSI, chronic sinus formation and need for reoperation when compared to the partial mesh excision in an infected mesh event. However, the available evidence has failed to report the outcomes with respect to the main confounding factors which, together with other important outcomes such as fistula formation, should be considered by future high quality research.